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GRADUATE PROGRAMMES IN BUILDING ENGINEERING

A master's programme in building engineering is offered and building studies is an area within the Doctor of Engineering Programme of the Faculty of Engineering. These programmes are structured to enable specialization in one of the following four areas: Building Environment, Building Science, Building Structures, Construction Management. The programme is available to professional engineers and architects on a part time or full time basis.

The Discipline

Building engineering, as a discipline, encompasses the body of knowledge which pertains to all phases in the life cycle of a constructed facility, namely conception, planning, design, construction, operation and disposal.

The Opportunities

The services of the building engineer are sought by consultants, owners, contractors, manufacturers, government and research and educational institutions. His/her talents are applied to all phases in the life cycle of various types of built facilities which include commercial, residential, industrial and institutional facilities as well as to the development of new innovations and knowledge pertaining to the built environment.

The Master's Programme

To qualify for the master's degree, students must complete the common core (9 credits), the branch core (9 credits) and electives (6 - 18 credits) chosen from the building engineering courses or from approved courses in the Master of Engineering programme.

Applicants to this programme must have completed a Bachelor of Engineering (Mechanical or Civil) or a Bachelor of Architecture, with high standing.

Students lacking the necessary background for their area of study may be required to complete additional courses in order to develop an appropriate knowledge base.

The Doctoral Programme

Building studies forms one area of concentration within the Doctor of Engineering programme.

The D.Eng. consists of a minimum of 18 credits in course work and 90 credits in research work. Potential candidates for this option are advised to contact the Graduate Programme Coordinator in order to discuss their eligibility for admission and possible research areas for their D.Eng. programme.

Thesis Topics

Current topics of research within the Centre include: design criteria for sandwich panels, stapled connections for panelized structures, connections between prefabricated components subjected to earthquake forces, light gauge steel and corrugated asbestos - cement shear diaphragms, collapse analysis of grillages and space trusses, framed tube structures, sandwich panel building systems, design of the fabric of buildings, physical and mechanical properties of sealants, materials in relation to energy conservation, predicting environmental performance of façade geometry, analysis of HVAC heat exchange units, study of a solar house, design strategies for energy efficient buildings, sound transmission characteristics of sandwich panels, community and building noise evaluation, economic effects of implementing improved noise control standards, response of cavity backed panels to transient excitation, project management systems for medium sized contractors, the use of computers for automatic estimating for the construction industry, productivity in construction, and optimum design of industrial buildings.

Course Descriptions

Course descriptions are contained in the complete Graduate Programme Brochure and the Graduate Studies Calendar, which are available upon request.

For further information and a complete brochure, call (514) 879-8551, or write to the Graduate Programme Coordinator at the address shown on the letterhead.